

## **REMARKS/ARGUMENTS**

These remarks are made in response to the Office Action of December 24, 2008 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due. However, the Examiner is expressly authorized to charge any deficiencies to Deposit Account No. 14-1437.

### **Claim Rejections – 35 USC § 101**

Claims 1 and 7 were rejected under 35 U.S.C. § 101 because it was asserted that the claimed invention is directed to non-statutory subject matter. More specifically, it was asserted that the claims do not recite any specific computerized or mechanical apparatus used to perform any steps of the process and no statutory subject matter is manipulated or transformed by the recited steps.

The claims have been amended to recite a computer-implemented method or system. A computer is tied to another statutory class, namely an apparatus. Applicants submit that a person of ordinary skill in the art would readily appreciate that practicable embodiments of the claimed invention would be conducted with the aid of a computing machine. Such computing machines are commonly understood to have memory. The operations recited in the claims clearly change the state of the underlying data since the cache, register, or other memory on which the data is stored must be transformed to have a different magnetic polarity, electrical charge, or the like depending on the technology that is used. These are real physical changes. Further, memory is a real physical article. As such, Applicants submit that the method claims perform a transformation under the “machine or transformation” test and thus qualify as patent-eligible subject matter.

### **Claim Rejections – 35 USC § 103**

Claims 1 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,314,361 to Yu, *et al.* (hereinafter Yu) in view of U.S. Published Patent Application 2003/0061085 to Lanigan, Sr. (hereinafter Lanigan), and in further view of

U.S. Patent 5,325,303 to Walz, *et al.* (hereinafter Walz) and U.S. Published Patent Application 2002/0194037 to Creed, *et al.* (hereinafter Creed).

Although Applicants respectfully disagree with the rejections, Applicants have slightly modified the language of Claim 1 in an effort to even more clearly define the present invention. Applicants have added Claims 26-29. The claim amendments and added claims are fully supported by the original disclosure and no new matter has been introduced.

**Aspects of Applicants' Invention**

It may be helpful to reiterate certain aspects of Applicants' invention prior to addressing the cited references. One embodiment of the invention, as typified by Claim 1, is a computer-implemented method for determining flight cancellations.

The method can include detecting a flight cancellation condition, and determining at least two flight cancellation candidates using flight operations data, including equipment, crew, and plane availability.

The method also can include obtaining real time flight financial data from at least one flight financial data store for the at least two flight cancellation candidates, and processing the flight financial data for the flight cancellation candidates to determine for each flight cancellation candidate an amount of revenue lost by canceling a flight corresponding to a particular flight cancellation candidate. The flight financial data includes a value of passenger tickets, a value of cargo, a value of United States Postal Service (USPS) mail, and cost associated with operating an aircraft of each of the at least two flight cancellation candidates including crew and fuel cost. Amounts of revenue can include values for time-critical cargo and coupons held by passengers assigned to each flight corresponding to the particular flight cancellation candidate.

The method further can include presenting for each flight cancellation candidate the amount of revenue lost determined based upon the financial data for the flight

cancellation candidates, and selecting from among the at least two flight cancellation candidates a flight cancellation candidate and canceling the flight corresponding to the selected flight cancellation candidate if the amount of revenue lost by canceling the corresponding flight is less than the revenue lost by canceling any other flight corresponding to a non-selected flight cancellation candidate. See, e.g., Specification, paragraphs [0025] to [0030].

**The Claims Define Over The Prior Art**

As already discussed in the previous response, Yu concerns rerouting and rescheduling of aircraft in light of flight schedule disruptions, not determining which flight to cancel among at least two flight cancellation candidates as in the present invention. Therefore, the subject matter of Yu is totally different from the subject matter of the present invention. Although Yu can take cancelled flights into consideration in calculations for making rerouting and rescheduling decisions (for example, the routes of the cancelled flights can be used as phantom routes in calculating a new route), Yu does not disclose how a flight cancellation decision is made.

It was asserted in the last paragraph on page 2 of the Office Action that the optimization engine in Yu considers solutions that include at least one flight cancellation among the candidate flights, as well as other options such as rerouting and rescheduling.

Yu discloses in col. 9, lines 29-31 that a solution comprised of flight delays and cancellations, Ferry Flight creations, as well as aircraft reassessments is produced. However, it is noted that in Yu the cancellations are part of the rerouting and rescheduling scheme, not a separate decision-making process as in the present invention. Just because Yu mentions flight cancellations, it does not mean that Yu discloses the steps of the decision-making process of the present invention.

As also already discussed in the previous response, an important aspect of the present invention is the utilization of the real time flight financial data so that the flight

cancellation decision is made based on updated, not outdated financial data. Although Yu mentions a real-time decision support system for reassigning, rescheduling, and rerouting aircraft in response to flight operation disruptions (see, e.g., col. 4, line 33), Yu does not disclose that real time financial data is utilized in the real-time decision support system. It is described in col. 7, lines 38-41 of Yu that: "The term 'real time' is used in the sense that the optimization engine of the present invention creates multiple solutions to an operations problem in less than a minute, and usually in mere seconds." Clearly, in Yu the term "real time" refers to the operation of the optimization engine, not the characteristic of the financial data. The language of Claim 1 has been modified to clearly recite that real time flight financial data is obtained from at least one flight financial data store.

None of the other cited references concerns the subject matter of the present invention, namely determining flight cancellations from flight cancellation candidates based on real time flight financial data. Also, none of the other cited references make up for the deficiencies of Yu as discussed above.

Accordingly, the cited references, alone or in combination, fail to disclose or suggest each and every element of Claims 1, 26, and 28. Applicants therefore respectfully submit that Claims 1, 26, and 28 define over the prior art. Furthermore, as each of the remaining claims depends from Claims 1, 26, or 28 while reciting additional features, Applicants further respectfully submit that the remaining claims likewise define over the prior art.

Applicants thus respectfully request that the claim rejections under 35 U.S.C. § 103 be withdrawn.

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Amendment dated March 24, 2009  
Reply to Office Action of December 24, 2008  
Docket No. BOC9-2003-0037 (406)

**CONCLUSION**

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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